Millenium

MPS-250 USB

e-drum set



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1 General notes

This user manual contains important information on safe operation of the device. Read and follow all safety notes and all instructions. Save this manual for future reference. Make sure that it is available to all persons using this device. If you sell the device, include the manual for the next owner.

Our products are subject to a process of continuous development. We therefore reserve the right to make changes without notice.

Symbols and signal words

This section provides an overview of the symbols and signal words used in this user manual.

| Signal word | Meaning | |
|---------------|--|--|
| DANGER! | This combination of symbol and signal word indicates an immediate dangerous situation that will result in death or serious injury if it is not avoided. | |
| CAUTION! | This combination of symbol and signal word indicates a possible dangerous situation that can result in minor injury if it is not avoided. | |
| NOTICE! | This combination of symbol and signal word indicates a possible dangerous situation that can result in material and environmental damage if it is not avoided. | |
| Warning signs | Type of danger | |
| <u> </u> | Warning – danger zone. | |



2 Safety notes

Intended use

Drum modules are intended to be used for converting digital trigger signals from drum pads to various percussion sounds. Use the unit only as described in this manual. Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damages resulting from improper use.

This device may be used only by persons with sufficient physical, sensorial, and intellectual abilities and having corresponding knowledge and experience. Other persons may use this device only if they are supervised or instructed by a person who is responsible for their safety.

Safety



DANGER!

Danger for children

Ensure that plastic bags, packaging, etc. are disposed of properly and are not within reach of babies and young children. Choking hazard!

Ensure that children do not detach any small parts (e.g. knobs or the like) from the unit. They could swallow the pieces and choke!

Never let children unattended use electrical devices.



CAUTION!

Possible hearing damage

With loudspeakers or headphones connected, the device can produce volume levels that may cause temporary or permanent hearing impairment.

Do not operate the device permanently at a high volume level. Decrease the volume level immediately if you experience ringing in your ears or hearing impairment.



NOTICE!

Operating conditions

This device has been designed for indoor use only. To prevent damage, never expose the device to any liquid or moisture. Avoid direct sunlight, heavy dirt, and strong vibrations.





NOTICE!

External power supply

The device is powered by an external power supply. Before connecting the external power supply, ensure that the input voltage (AC outlet) matches the voltage rating of the device and that the AC outlet is protected by a residual current circuit breaker. Failure to do so could result in damage to the device and possibly the user.

Unplug the external power supply before electrical storms occur and when the device is unused for long periods of time to reduce the risk of electric shock or fire.



3 Features

- 184 sounds
- 20 pre-programmed drum kits
- 50 pre-programmed patterns
- Metronome
- Recording and playback function
- Flexible pad programming
- Connections: Headphones, Line IN/OUT and USB-MIDI
- Automatic switchoff



4 Scope of delivery



Before assembling the e-drum set, verify that the delivery is complete by means of the list below.

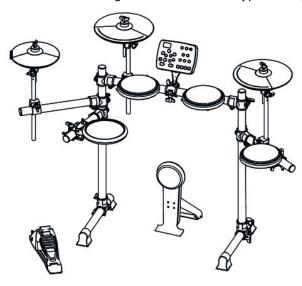
- Rack, consisting of two side legs, a horizontal crossbar and three wing arms with holder clamps (pre-assembled unit)
- 2 × supports for crash pad and ride pad
- 1 × support for hi-hat pad
- 2 × feet with pre-mounted holder clamps
- 3 × tom pads, 8"
- 1 × tom pad with rim trigger, 8"
- 1 × crash pad with choke function, 12"
- 1 × ride pad, 12"
- 1 × hi-hat pedal and hi-hat pad, 8"
- 1 × bass drum pad, 6"
- Drum module
- Complete pad cabling
- 9 V == (DC) power supply unit



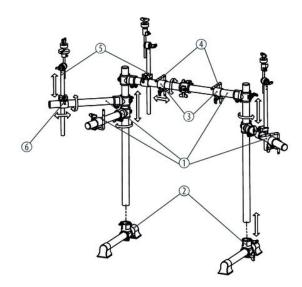
5 Assembly

Overview

The following overview shows the typical setup of a drum set.



Setting up the rack

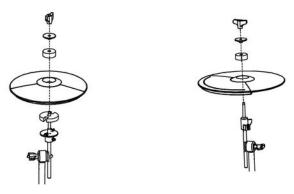


| 1 | Adjust the height of the rack's horizontal crossbar and three wing arms according to your preferred playing position. Then tighten the retaining screws. |
|---|--|
| 2 | Position the two feet on the floor and insert the two rack legs into the holder clamps provided for this purpose. Make sure that the lower ends of the legs are resting flush on the floor. Then tighten the retaining screws. |
| 3 | Position the holder clamps for the individual pads. Then tighten the retaining screws. |
| 4 | Turn the L-rods into a suitable position for mounting the pads. Then tighten the retaining screws. |
| 5 | Insert the crash pad, ride pad and hi-hat pad supports into the respective holder clamps on the rack. Secure the supports at the desired vertical position using the retaining screws. |
| 6 | Loosen the retaining screws at the support joints and orient the supports so as to match your preferred playing position. Then re-tighten the retaining screws. |



Hi-hat, crash, ride

Unscrew the wing nuts from the pad supports and remove the felt washers from the supports. Place the pads on their supports as illustrated. Put the felt washers on top of the pads, and secure the pads on their supports using the respective wing nuts. Observe the part designations of the pads during assembly (HI-HAT = A-8 Hi-Hat, CRASH = A-12 Cymbal edg., RIDE = A-12 Cymbal).



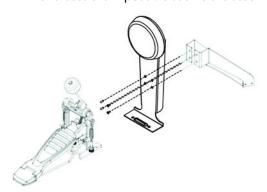
Snare, toms

Fit the snare pad (left) and the tom pads (right) onto the L-rods as illustrated, align the L-rods according to your preferred playing position, and tighten the retaining screws on the rack and on the pads.



Bass drum

The bass drum pad is played with a bass drum pedal (not included in the scope of delivery). The following figure shows an example of assembling the bass drum pad with a bass drum pedal. Observe the assembly instructions of the bass drum pedal.





Drum module

Attach the drum module to its support using the screws supplied, as illustrated. Then affix the support plate to the holder clamp on the rack.



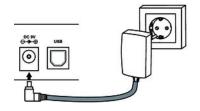
Setup and cabling

Finally adjust the rack and all pads according to your preferences. As a final step, all pads must be connected to the drum module by means of cables (see % 'Connecting the pads' on page 13).



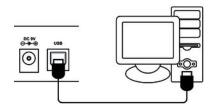
6 Installation

Connecting the power supply



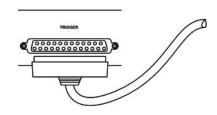
Connect the power supply unit included in delivery to the DC 9V input on the rear of the drum module and then insert the power plug into the socket outlet.

Connecting USB devices



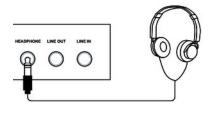
Connect an external USB device (PC) to the USB port on the rear of the drum module.

Connecting the pads



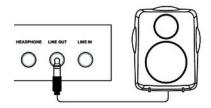
Connect the pads on the rack to the D-sub connector on the rear of the drum module using the cable harness (pad cable) supplied (observe cable markings).

Connecting headphones



Connect your stereo headphones to the HEADPHONE output on the rear of the drum module.

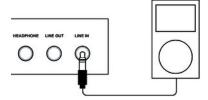
Connecting a speaker, amplifier or PA system



Connect an active speaker, an amplifier or your PA system to the LINE OUT output on the rear of the drum module. When connecting an external mono system, we recommend using a stereo-to-mono adapter.



Connecting audio devices

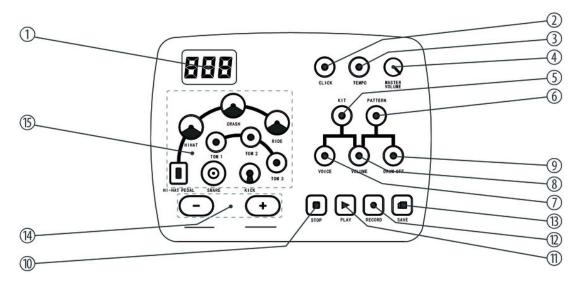


Connect audio devices such as CD players, MP3 players, etc. to the LINE IN input on the rear of the drum module.



7 Connections and controls

Drum module, front panel

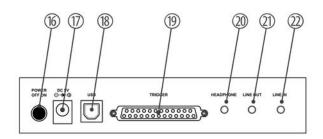


| 1 | 7-segment LED display, 3 digits |
|----|--|
| 2 | [CLICK] |
| | Button for switching the metronome on/off. |
| 3 | [TEMPO] |
| | Button for setting the metronome speed and controlling the recording and playback speed. |
| 4 | [MASTER VOLUME] |
| | Knob control for adjusting the playback volume of the drum module. |
| 5 | [KIT] |
| | Button for opening the KIT menu. |
| 6 | [PATTERN] |
| | Button for opening the PATTERN menu. |
| 7 | [VOICE] |
| | Button for opening the VOICE menu. |
| 8 | [VOLUME] |
| | Button for opening the VOLUME menu. |
| 9 | [DRUM OFF] |
| | Button for muting the drum track of a pattern. |
| 10 | [STOP] |
| | Button for stopping pattern playback and for terminating a recording. |



| 11 | [PLAY] |
|----|--|
| | Button for playing back a pattern. |
| 12 | [RECORD] |
| | Button for activating the recording mode. |
| 13 | [SAVE] |
| | Button for saving a recording. |
| 14 | [-]/[+] |
| | Selection / navigation buttons for all menus with forward and fast forward (press and hold down). |
| | Reset function |
| | To reset the drum module to its factory defaults, press and hold down these two buttons during startup of the device until 'rES' appears on the display. |
| 15 | Pad selection buttons |
| | [HI-HAT-PEDAL], [HI-HAT], [CRASH], [RIDE], [TOM 1/2/3], [KICK], [SNARE] |

Drum module, rear panel



| 16 | POWER OFF ON |
|----|--|
| | Push button for turning the drum module on/off. After switching off the device, wait at least 5 s before switching it on again (time required for resetting the electronic circuits). |
| 17 | DC 9V |
| | Socket for connecting the power supply unit. |
| 18 | USB |
| | USB port for connecting a PC with USB interface. The drum module is compatible with Windows® XP, Windows® Vista and Windows® 7 as well as Apple Macintosh and is recognized as an external audio device by the PC. |



| 19 | TRIGGER |
|----|---|
| | 25-pin D-sub connector for connecting the pad cable supplied. |
| 20 | HEADPHONE |
| | Headphone output (stereo). |
| 21 | LINE OUT |
| | Output jack for connecting an active speaker or an amplifier or directly a PA system. When connecting an external mono system, we recommend using a stereo-to-mono adapter. |
| 22 | LINE IN |
| | Input jack for connecting external audio devices such as CD players, MP3 players, etc. |



8 Operation

8.1 Functions

Power on



Before switching on the device, check all cables for proper connection.

Before switching on the device, turn the [MASTER VOLUME] control of the drum module to its minimum level, and switch off all external devices connected

Switch on the drum module using the [ON/OFF] push button.

Automatic switchoff

When the drum module is not used, it will switch off automatically after 20 minutes. To switch it on again, press the [ON/OFF] push button.

Adjusting the volume

If applicable, switch on any connected active speaker or amplifier and set the volume control of the external device to a medium level first. To set the output volume of the drum module, hit a pad while slowly turning the [MASTER VOLUME] control in clockwise direction.

Selecting a drum kit

A drum kit is a percussion arrangement where each trigger is assigned a certain voice and several sound parameters. By selecting a drum kit, you can instantly tailor the sound of your e-drum set to match the desired style of music. You may also create and save your own drum kits on the basis of the 20 on-board drum kits (see \$Chapter 11.1 'Kit list' on page 25).

- **1.** After switching on the drum module, the KIT menu opens by default. If another menu opens, press the [KIT] button to open the KIT menu. The number of the first drum kit appears on the display.
- **2.** Use the [-]/[+] buttons to select the desired drum kit ('01' to '20').

Adjusting drum kits

You can set the voice and volume of each single trigger of the drum kit.

- **1.** \triangleright Switch to the KIT menu and select the desired kit using the [-] / [+] buttons.
- Press the button of the pad to which you want to assign a certain voice and/or whose volume you want to change. Alternatively you can activate the corresponding pad also by striking it directly.
- Press the [VOICE] button to open the VOICE menu, or press the [VOLUME] button to adjust the pad volume.
 - ⇒ The number of the currently set voice or volume appears on the display.

 Depending on your selection, the signal LED of either the [VOICE] or the [VOLUME] button is lit.
- **4.** Using the [-] / [+] buttons, select the desired voice ('1' to '184'), or set the volume to any desired value between '0' and '127'.



Activate the next pad, or confirm your selection with [SAVE] to permanently assign the new settings.



If you do not want to permanently save your changes, press either the [VOICE] or the [VOLUME] button (depending on your previous selection) to exit the editing mode. All unsaved changes will be lost when you switch off the drum module.

Selecting a pattern

The drum module comes with 50 different built-in patterns for accompaniment and practice.

- Press the [PATTERN] button to open the PATTERN menu. The number of the first pattern appears on the display.
- **2.** Use the [-]/[+] buttons to select the desired pattern ('P01' to 'P50').
- **3.** Press the [PLAY] button to start playback.
 - ⇒ The pattern will be played back in an endless loop until you select another pattern or terminate playback by pressing the [STOP] button.

You may adjust the pattern playback speed at any moment by means of the [-] / [+] buttons.

- 1. Press the [TEMPO] button. The current playback speed appears on the display.
- Using the [-] / [+] buttons, set the playback speed to any desired value between '40' and '240'.



To reset the playback speed, simultaneously press the [-]/[+] buttons.

You may adjust the pattern playback volume at any moment by means of the [-]/[+] buttons.

- Press the [VOLUME] button. The current playback volume appears on the display.
- Using the [-] / [+] buttons, set the playback volume to any desired value between '0' and '127'.



When practicing, you can mute the pattern's drum track ([DRUM OFF] button).



Metronome

Press the [CLICK] button to activate or deactivate the metronome.

You may adjust the click speed at any moment by means of the [-] / [+] buttons.

- **1.** Press the [TEMPO] button. The current click speed appears on the display.
- Using the [-] / [+] buttons, set the click speed to any desired value between '40' and '240'.



To reset the click speed to its default value (120 bpm), simultaneously press the [-]/[+] buttons.

Recording function

The drum module offers you the possibility of recording a pattern of your own and saving it as pattern no. '051' on the device. The recording can be done with or without accompaniment pattern. When recording with an accompaniment pattern, you can mute the included drum track ([DRUM OFF] button).

Recording without accompaniment pattern

- **1.** Press the [RECORD] button to activate the recording mode.
 - ⇒ The signal LED of the [RECORD] button starts flashing. The number of the first pattern appears on the display. Press the [PATTERN] button to record without accompaniment ('oFF' message).
- **2.** Start recording by striking a pad (synchro start).
 - ⇒ The signal LED of the [RECORD] button lights up.
- **3.** Terminate your recording by pressing the [STOP] button.
 - ⇒ The signal LED of the [RECORD] button goes out.

Recording with accompaniment pattern

- **1.** Press the [RECORD] button to activate the recording mode.
 - ⇒ The signal LED of the [RECORD] button starts flashing. The number of the first pattern appears on the display.
- **2.** \triangleright Use the [-]/[+] buttons to select the desired accompaniment pattern.
- **3.** Adjust the pattern volume and pattern speed (see).
- **4.** Start recording by pressing the [RECORD] button (auto start with one 4/4 bar pre-count).
 - ⇒ The signal LED of the [RECORD] button lights up. The pattern will be played back in an endless loop until you terminate playback by pressing the [STOP] button and the signal LED of the [RECORD] button goes out.





The accompaniment pattern always plays until the last bar during a recording, independently of when you terminate your recording.

Recording with metronome

To make the metronome click during a recording, press the [CLICK] button after activating the recording mode (signal LED of the button starts flashing). The clicking will automatically set in with the recording.



The click sound is not recorded.

Terminating and playing back a recording

- **1.** Terminate your recording by pressing either the [RECORD] or the [STOP] button.
 - ⇒ The signal LED of the [RECORD] button is flashing.
- **2.** Save your recording by pressing the [SAVE] button.
 - \Rightarrow The signal LED of the [RECORD] button goes out.

The signal LED of the [PATTERN] button lights up.

'P51' appears on the display.

Discarding or overwriting a recording

To discard your recording, press either the [KIT] or the [PATTERN] button to exit the recording mode.

To overwrite your recording, start a new recording as described above.

8.2 Playing the pads

The bass drum, snare, hi-hat and cymbals of an analog drum set are replaced by pads here. When you strike a pad, an integrated trigger produces the previously assigned voice via the drum module. The harder you hit a pad, the louder the sound produced.

Toms

Tom pads have only one trigger and must be hit in the center in order to produce a sound.

Crash and ride

Crash and ride pads have only one trigger and must be hit in the slightly thicker rubber-coated zone to produce a sound.



The crash pad can be muted with the hand just like an analog cymbal (choke function).

Snare

The snare pad has two triggers: the center trigger produces the typical snare sound, while the rim trigger produces rim shots.

Bass drum

The bass drum pad has only one trigger and must be hit in the center to produce a sound.

Hi-hat

- You produce a closed hi-hat sound by keeping the hi-hat pedal depressed while hitting the hi-hat
- You produce an open hi-hat sound by not pressing the hi-hat pedal while hitting the hi-hat
- An open hi-hat sound changes smoothly to a closed hi-hat sound when you start pressing the hi-hat pedal while hitting the hi-hat.



9 Technical data

| Pads | 9 velocity-sensitive drum pads, including bass drum pedal and hi-hat pedal | |
|--------------------|---|--|
| Sounds | 184 | |
| Drum kits | 20 pre-programmed drum kits | |
| Patterns | 50 pre-programmed patterns, 1 user-defined pattern | |
| Connections | 25-pin D-sub for connecting the pads (pad cable included in delivery) USB LINE IN / LINE OUT (3.5 mm jack connectors) | |
| | Headphones (3.5 mm jack connector) | |
| Mains power supply | 9 V power supply unit | |



10 Connector and pin assignments

Introduction

This chapter will help you select the right cables and plugs to connect your valuable equipment in such a way that a perfect sound experience is ensured.

Please note these advices, because especially in 'Sound & Light' caution is indicated: Even if a plug fits into the socket, an incorrect connection may result in a destroyed power amp, a short circuit or 'just' in poor transmission quality!

Balanced and unbalanced transmission

Unbalanced transmission is mainly used in semi-professional environment and in hifi use. Instrument cables with two conductors (one core plus shielding) are typical representatives of the unbalanced transmission. One conductor is ground and shielding while the signal is transmitted through the core.

Unbalanced transmission is susceptible to electromagnetic interference, especially at low levels, such as microphone signals and when using long cables.

In a professional environment, therefore, the balanced transmission is preferred, because this enables an undisturbed transmission of signals over long distances. In addition to the conductors 'Ground' and 'Signal', in a balanced transmission a second core is added. This also transfers the signal, but phase-shifted by 180°.

Since the interference affects both cores equally, by subtracting the phase-shifted signals, the interfering signal is completely neutralized. The result is a pure signal without any noise interference.

1/4" TS phone plug (mono, unbalanced)



| 1 | Signal |
|---|--------|
| 2 | Ground |

3.5 mm TRS phone plug (mono, balanced)



| 1 | Signal (in phase, +) |
|---|--------------------------|
| 2 | Signal (out of phase, –) |
| 3 | Ground |

Three-pole 1/8" mini phone jack (stereo, unbalanced)



| 1 | Signal (left) |
|---|-------------------|
| 2 | Signal (right) |
| 3 | Ground, shielding |



11 Appendix

11.1 Kit list

| No. | Name | No. | Name |
|-----|----------|-----|-----------|
| 01 | Pop | 11 | HeavyBeat |
| 02 | Electric | 12 | Metal |
| 03 | Jazz | 13 | Rock |
| 04 | BeatBox | 14 | Punk |
| 05 | 808 | 15 | Carbon |
| 06 | Fireball | 16 | Disco |
| 07 | Magnet | 17 | TightRope |
| 08 | Dry | 18 | Smashing |
| 09 | Machine | 19 | Largeness |
| 10 | Room | 20 | Funky |

11.2 Voice list

| No. | Description | No. | Description |
|-----|-------------|-----|-------------|
| GM | | 010 | KickDrum1 |
| 001 | HighQ | 011 | SideStick |
| 002 | Slap | 012 | SnareDrum2 |
| 003 | ScraPush | 013 | HandClap |
| 004 | ScraPull | 014 | SnareDrum1 |
| 005 | Stick | 015 | LoFloTom2 |
| 006 | SquarClick | 016 | CloseHH |
| 007 | MetroClick | 017 | LowFloTom1 |
| 008 | MetroBell | 018 | PedalHH |
| 009 | KickDrum2 | 019 | LowTom |

| No. | Description | No. | Description |
|-----|-------------|-----|-------------|
| 020 | OpenHi-hat | 033 | RideCymb2 |
| 021 | Low-midTom | 034 | HiBongo |



| No. | Description | No. | Description |
|-----|-------------|-----|-------------|
| 022 | Hi-midTom | 035 | LowBongo |
| 023 | CrashCymb1 | 036 | MuteConga |
| 024 | RHighTom | 037 | HiConga |
| 025 | RideCymb1 | 038 | LowConga |
| 026 | ChCymbal | 039 | HighTimbal |
| 027 | RideBell | 040 | LowTimbale |
| 028 | Tambourine | 041 | HighAgogo |
| 029 | SplashCymb | 042 | LowAgogo |
| 030 | Cowbell | 043 | Cabasa |
| 031 | CrashCymb2 | 044 | Maracas |
| 032 | VibraSlap | 045 | ShortWhist |

| No. | Description | No. | Description |
|-----|-------------|------|-------------|
| 046 | LongWhist | 059 | Castanets |
| 047 | ShortGuiro | 060 | MuteSurdo |
| 048 | LongGuiro | 061 | OpenSurdo |
| 049 | Claves | KICK | |
| 050 | Hi W-Block | 062 | Kick 1 |
| 051 | Lo W-Block | 063 | Kick 2 |
| 052 | MuteCuica | 064 | Kick 3 |
| 053 | OpenCuica | 065 | Kick 4 |
| 054 | MuteTriang | 066 | Kick 5 |
| 055 | OpenTriang | 067 | Kick 6 |
| 056 | Cabasa | 068 | Kick 7 |
| 057 | Shaker | 069 | Kick 8 |
| 058 | Belltree | 070 | Kick 9 |

| No. | Description | No. | Description |
|-----|-------------|-----|-------------|
| 071 | Kick 10 | 083 | Snare 3 |
| 072 | Kick 11 | 084 | Snare 4 |
| 073 | Kick 12 | 085 | Snare 5 |
| 074 | Kick 13 | 086 | Snare 6 |



| No. | Description | No. | Description |
|-------|-------------|-----|-------------|
| 075 | Kick 14 | 087 | Snare 7 |
| 076 | Kick 15 | 088 | Snare 8 |
| 077 | Kick 16 | 089 | Snare 9 |
| 078 | Kick 17 | 090 | Snare 10 |
| 079 | Kick 18 | 091 | Snare 11 |
| 080 | Kick 19 | 092 | Snare 12 |
| SNARE | | 093 | Snare 13 |
| 081 | Snare 1 | 094 | Snare 14 |
| 082 | Snare 2 | 095 | Snare 15 |

| No. | Description | No. | Description |
|-----|-------------|---------------|-----------------|
| 096 | Snare 16 | 109 | Snare 29 |
| 097 | Snare 17 | 110 | Snare 30 |
| 098 | Snare 18 | 111 | Snare 31 |
| 099 | Snare 19 | 112 | Snare 32 |
| 100 | Snare 20 | 113 | Snare 33 |
| 101 | Snare 21 | 114 | Snare 34 |
| 102 | Snare 22 | 115 | Snare 35 |
| 103 | Snare 23 | SIDE STICK | |
| 104 | Snare 24 | 116 | SideStick 1 |
| 105 | Snare 25 | 117 | SideStick 2 |
| 106 | Snare 26 | 118 | SideStick 3 |
| 107 | Snare 27 | CLOSED HI-HAT | |
| 108 | Snare 28 | 119 | Closed Hi-Hat 1 |

| No. | Description | No. | Description |
|-----|-----------------|-----|---------------|
| 120 | Closed Hi-Hat 2 | 132 | Open Hi-Hat 2 |
| 121 | Closed Hi-Hat 3 | 133 | Open Hi-Hat 3 |
| 122 | Closed Hi-Hat 4 | 134 | Open Hi-Hat 4 |
| 123 | Closed Hi-Hat 5 | 135 | Open Hi-Hat 5 |
| 124 | Closed Hi-Hat 6 | 136 | Open Hi-Hat 6 |
| 125 | Closed Hi-Hat 7 | 137 | Open Hi-Hat 7 |



| No. | Description | 1 | No. | Description |
|-------------|------------------|---|-----|----------------|
| 126 | Closed Hi-Hat 8 | | 138 | Open Hi-Hat 8 |
| 127 | Closed Hi-Hat 9 | | 139 | Open Hi-Hat 9 |
| 128 | Closed Hi-Hat 10 | | 140 | Open Hi-Hat 10 |
| 129 | Closed Hi-Hat 11 | | 141 | Open Hi-Hat 11 |
| 130 | Closed Hi-Hat 12 | | 142 | Open Hi-Hat 12 |
| OPEN HI-HAT | | | 143 | Open Hi-Hat 13 |
| 131 | Open Hi-Hat 1 | | | |

| No. | Description | No. | Description |
|---------|-------------|---------|-------------|
| нітом | | 155 | Mid Tom 4 |
| 144 | Hi Tom 1 | 156 | Mid Tom 5 |
| 145 | Hi Tom 2 | 157 | Mid Tom 6 |
| 146 | Hi Tom 3 | 158 | Mid Tom 7 |
| 147 | Hi Tom 4 | 159 | Mid Tom 8 |
| 148 | Hi Tom 5 | LOW TOM | |
| 149 | Hi Tom 6 | 160 | Low Tom 1 |
| 150 | Hi Tom 7 | 161 | Low Tom 2 |
| 151 | Hi Tom 8 | 162 | Low Tom 3 |
| MID TOM | | 163 | Low Tom 4 |
| 152 | Mid Tom 1 | 164 | Low Tom 5 |
| 153 | Mid Tom 2 | 165 | Low Tom 6 |
| 154 | Mid Tom 3 | 166 | Low Tom 7 |

| No. | Description | No. | Description |
|-------|-------------|------------------|--------------|
| 167 | Low Tom 8 | 176 | Ride 6 |
| CRASH | | OTHER PERCUSSION | |
| 168 | Crash 1 | 177 | Percussion 1 |
| 169 | Crash 2 | 178 | Percussion 2 |
| 170 | Crash 3 | 179 | Percussion 3 |
| RIDE | | 180 | Percussion 4 |
| 171 | Ride 1 | 181 | Percussion 5 |
| 172 | Ride 2 | PEDAL HI-HAT | |



| No. | Description | No. | Description |
|-----|-------------|-----|----------------|
| 173 | Ride 3 | 182 | Pedal Hi-Hat 1 |
| 174 | Ride 4 | 183 | Pedal Hi-Hat 2 |
| 175 | Ride 5 | 184 | Pedal Hi-Hat 3 |

11.3 MIDI implementation

| Function | | Transmitted | Recognized | Remarks |
|------------------|-------------|-------------|------------|----------------------|
| Basic channel | | 10 | 1-16 | |
| Note number | | 0-127 | 0-127 | |
| Velocity | Note ON | 1-127 | 0-127 | |
| | Note OFF | 64 | 0-127 | |
| Major Controls | B9h 04h xxh | Yes | No | Hi-Hat pedal control |
| | Bxh 79h 00h | Yes | Yes | Reset All Controller |
| | Bxh 7Bh 00h | Yes | Yes | All Notes OFF |
| Programme Change | | No | Yes | |
| System Exclusive | | Yes | Yes | |
| RPN | | No | Yes | |
| NRPN | | Yes | Yes | |



Channel 10 supports only Bank 0.

For more information regarding "System Exclusive", "RPN" and "NRPN", please contact your specialized dealer.

| Instrument | Note | Instrument | Note |
|------------|------|--------------|------|
| Tom 1 | 48 | Ride | 51 |
| Tom 2 | 45 | Hi-Hat Open | 46 |
| Tom 3 | 41 | Hi-Hat Close | 42 |
| Snare | 38 | Hi-Hat Pedal | 44 |
| Snare Rim | 37 | Kick | 36 |
| Crash | 55 | | |



12 Cleaning

Device parts

Clean the accessible parts of the device regularly. The frequency of cleaning depends on the operating environment: moist, smoky or particularly dirty environments may cause a higher accumulation of dirt on the components of the device.

- Use a dry soft cloth for cleaning.
- Remove stubborn stains with a slightly damp cloth.
- Never use cleaners containing alcohol or thinner.
- Never put any vinyl items on the device, as vinyl can stick to the surface or lead to its discolouration.



13 Protecting the environment

Disposal of the packaging material



For the transport and protective packaging, environmentally friendly materials have been chosen that can be supplied to normal recycling.

Ensure that plastic bags, packaging, etc. are properly disposed of.

Do not just dispose of these materials with your normal household waste, but make sure that they are collected for recycling. Please follow the notes and markings on the packaging.

Disposal of your old device



This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE). Do not dispose with your normal household waste.

Dispose of this device through an approved waste disposal firm or through your local waste facility. When discarding the device, comply with the rules and regulations that apply in your country. If in doubt, consult your local waste disposal facility.











